

No.

9700062



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Busch Agricultural Resources, Inc.

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. IN THE UNITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS A CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS SPECIFIED BY THE OWNER OF THE VARIETY. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

BARLEY

'MERIT'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this twelfth day of September, in the year two thousand one.

Attest:

Paul M. Jacobson

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Andrew M. ...

Secretary of Agriculture

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions on reverse)

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S) (as it is to appear on the Certificate) BUSCH AGRICULTURAL RESOURCES, INC.		2. TEMPORARY DESIGNATION OR EXPERIMENTAL NO. 2B91-4947	3. VARIETY NAME 'Merit'
4. ADDRESS (street and no. or R.F.D. no., city, state, and ZIP) 3515 EAST COUNTY ROAD 52 FT. COLLINS, CO 80524 USA		5. PHONE (include area code) (970) 221-5622 FAX #: (970) 482-5965	FOR OFFICIAL USE ONLY PVPO NUMBER 9700062 F I L I N G Date 12/19/96 Time <input type="checkbox"/> A.M. <input type="checkbox"/> P.M. F E E S Filing and Examination Fee: \$ 2450.00 Date 12/19/96 R E C E I V E D Certificate Fee: \$ 320.00 Date 8/31/01
6. GENUS AND SPECIES NAME HORDEUM VULGARE L.	7. FAMILY NAME (Botanical) GRAMINEA		
8. CROP KIND NAME (Common Name) SPRING BARLEY	9. DATE OF DETERMINATION		
10. IF THE APPLICANT NAMED IS NOT A "PERSON," GIVE FORM OF ORGANIZATION (Corporation, partnership, association, etc.) CORPORATION		11. IF INCORPORATED, GIVE STATE OF INCORPORATION DELAWARE	
12. DATE OF INCORPORATION 01/01/81		13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS DR. LES WRIGHT Thomas M. Wood BUSCH AGRICULTURAL RESOURCES, INC. (OR) DR. MIKE BJARKO 3515 EAST COUNTY ROAD 52 10733 Sunset Office Drive SAME ADDRESS & FT. COLLINS, CO 80524 ST. LOUIS MO 63127 PHONE # FAX #: (970) 482-5965 PHONE (include area code): (970) 221-5622	

14. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow INSTRUCTIONS on reverse)

a. ☒ Exhibit A, Origin and Breeding History of the Variety.
b. ☒ Exhibit B, Novelty Statement.
c. ☒ Exhibit C, Objective Description of Variety.
d. ☒ Exhibit D, Additional Description of Variety.
e. ☒ Exhibit E, Statement of the Basis of Applicant's Ownership.
f. ☒ Seed Sample (2,500 viable untreated seeds). Date Seed Sample mailed to Plant Variety Protection Office _____
g. ☒ Filing and Examination Fee (\$2,150) made payable to "Treasurer of the United States." H. QUALITY AND AGRONOMIC DATA

15. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? (See section 83(a) of the Plant Variety Protection Act.)
☒ YES (If "YES," answer items 16 and 17 below) ☒ NO (If "NO," skip to item 18 below)

16. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?
☐ YES ☒ NO

17. IF "YES" TO ITEM 16, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?
☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED

18. DID THE APPLICANT(S) PREVIOUSLY FILE FOR PROTECTION OF THE VARIETY IN THE U.S.?
☐ YES (If "YES," through ☐ Plant Variety Protection Act ☐ Patent Act. Give date: _____)
☐ NO

19. HAS THE VARIETY BEEN RELEASED, USED, OFFERED FOR SALE, OR MARKETING IN THE U.S. OR OTHER COUNTRIES?
☐ YES (If "YES," give names of countries and dates)
☒ NO

20. The applicant(s) declare(s) that a viable sample of basic seeds of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable.
The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in section 41, and is entitled to protection under the provisions of section 42 of the Plant Variety Protection Act. Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF APPLICANT (Owner(s)) Michael Bjarko	CAPACITY OR TITLE Barley Breeder	DATE 17 Dec '96
SIGNATURE OF APPLICANT (Owner(s)) Jedie Wright	CAPACITY OR TITLE Director of Research	DATE Dec. 17, 1996

EXHIBIT A ORIGIN AND BREEDING HISTORY OF MERIT

PEDIGREE: Manley // S74234 / Summit

Date of Cross: 1987

History:

In 1987 the cross of Manley//S74237/Summit was made in the greenhouse in Fort Collins, CO. The F1 was grown out in the greenhouse. Since there is no segregation in the F1 no selections were made. The F2 was grown in Idaho Falls in 1988. Individual plants were selected, based on the following criteria: Straw strength, Maturity, Scald resistance, Net blotch resistance. The F3 is advanced through single seed descent with no selections. The selection Merit originated in Fort Collins, CO as an F4 headrow in 1990. At the F4 stage experimental lines are selected based on several criteria. These traits are compared with those of selected commercial varieties grown in the same location. These varieties were Harrington and B1202. At the F4 headrow stage, selections is based on the following criteria:

Agronomic Traits:

Straw strength
Height, maturity
Head size
Test weight
Scald resistance.

Malting Traits:

Kernel plumpness
Protein
Extract level prediction.

The F5 generation is a seed increase. As an F6, it was first tested in replicated yield trials in 1991 at Fort Collins, CO and Idaho Falls, ID. From the first year of yield testing through the release of the variety, continual assessments of numerous agronomic and malting traits are carried out. These traits are assessed on samples grown at several locations per year and statistically compared to the most widely grown commercial varieties, plus selected advanced experimental lines. The varieties Harrington and B1202 were used throughout the testing program. Merit was also compared with numerous other commercial varieties, including Crystal, Galena, Oxbow and Manley. The following criteria are assessed at each stage of yield trial testing:

Agronomic traits:

Yield
Straw strength (lodging)
Height
Maturity
Test weight
Resistance to scald
Resistance to net blotch

Malting traits:

Kernel plumpness
Extract Level
Total protein
Soluble protein
Alpha amylase
Diastatic power
Wort viscosity
Turbidity

Our most important agronomic traits are yield, straw strength and disease resistance. Our most important malting traits are extract level, protein and enzyme levels (alpha amylase and diastatic power).

It was entered in the Western Spring Barley Nursery in 1994. It has been tested at the pilot scale level since 1994 within Anheuser-Busch. It is targeted as a two-rowed malting barley for the Intermountain states of Idaho, Montana and Wyoming. In 1993 head selections were made at Fort Collins, Colorado from a uniform and stable population to initiate purification and multiplication. Headrows were grown and bulked for Breeder seed in 1994. Breeder seed was produced in 1995 at Fort Collins. Merit has been uniform and stable from F6 through F10(Breeder Seed). Less than .05% of the plants were rogued from Breeder fields in 1995. Approximately 95% of the rogued plants were 2 to 4 centimeters taller than Merit. Less than .05% total variant plants may be encountered in subsequent generations. Certified seed will be available in 1998.

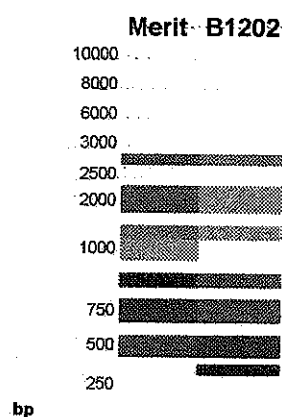
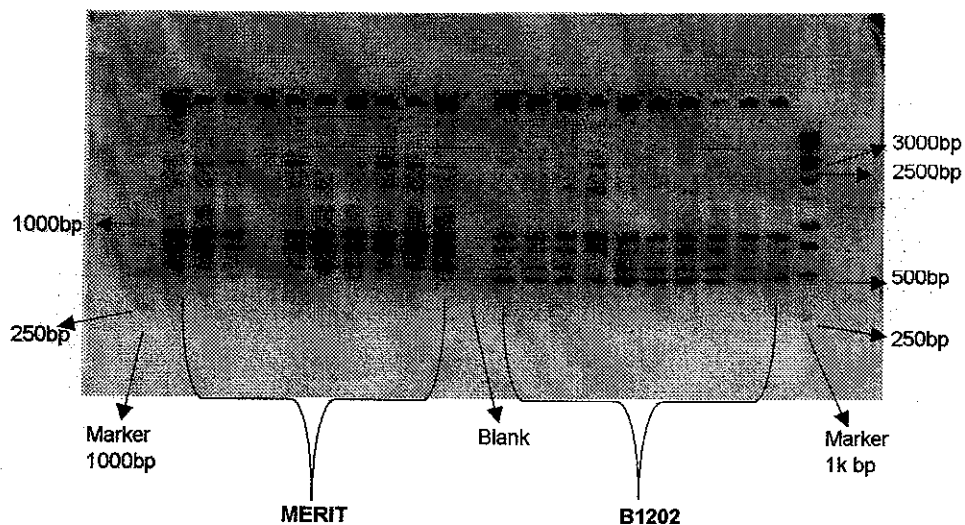
EXHIBIT B**STATEMENT OF DISTINCTNESS**

Merit is most similar to the spring barley variety "B1202", however it can be distinguished by the following morphological characteristics:

- Merit is a midseason spring barley.
B1202 is an early season spring barley.
- Merit has a mid-dense head.
B1202 has a lax head.
- Merit has glume hair confined to a band.
B1202 glumes are completely covered with hair.
- Genotyping Merit and B1202 with PCR-RAPD markers show genetic differences.

EXHIBIT B

Merit is distinguishable from B1202 using molecular method. Merit has an amplified DNA fragment a approx. 1000 and B1202 does not. B1202 has an amplified DNA fragment at approx. 450 and Merit does not. Genotyping was done with PCR-RAPD (polymerase chain reaction-random amplified polymorphic DNA) markers using a random 10-mer primer. Included are 3 illustrations and the actual photo.

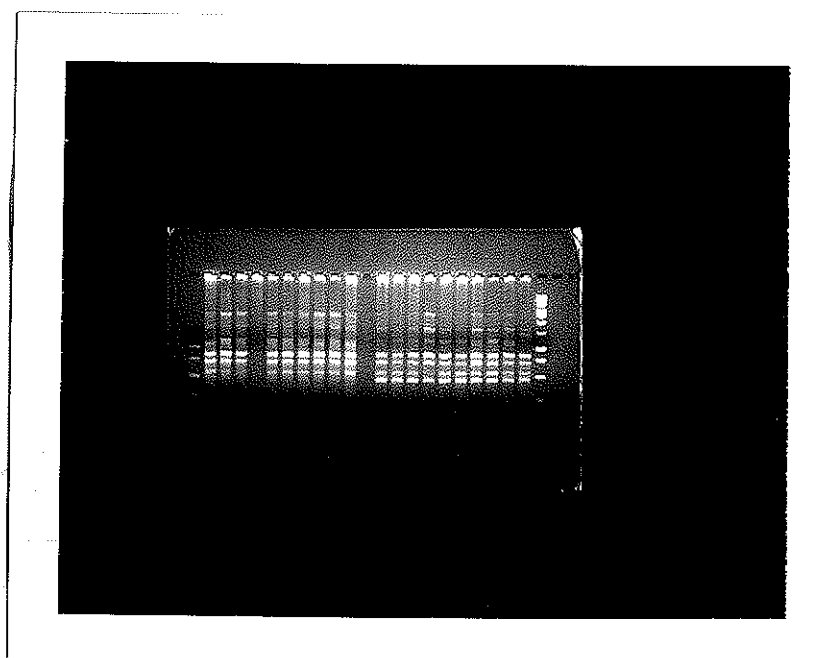
**Illustration 1****Illustration 2**

Merit B1202

2500 approx.	+	*
1000 approx.	*	
450 approx.	-	+

bp

- = band absent
+ = band present
* = faint band

Illustration 3**Actual Photo**

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK AND SEED DIVISION
BELTSVILLE, MARYLAND 20705

EXHIBIT C
(Barley)

OBJECTIVE DESCRIPTION OF VARIETY
BARLEY (HORDEUM VULGARE)

INSTRUCTIONS: See Reverse.

NAME OF APPLICANT(S)

BUSCH AGRICULTURAL RESOURCES, INC.

ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code)

3515 EAST COUNTY ROAD 52

FT. COLLINS, CO 80524

FOR OFFICIAL USE ONLY

PVPO NUMBER

9700062

VARIETY NAME OR TEMPORARY
DESIGNATION

Place the appropriate number that describes the varietal character of this variety in the boxes below.

Place a zero in first box (i.e. or) when number is either 99 or less or 9 or less.

1. GROWTH HABIT:

1 = SPRING 2 = FACULTATIVE WINTER 3 = WINTER Early Growth: 1 = PROSTRATE 2 = SEMIPROSTRATE
3 = ERECT

2. MATURITY (50% Flowering):

1 = EARLY (California Mariout) 2 = MIDSEASON (Betzes) 3 = LATE (Frontier)

No. of days Earlier than } 1 = BETZES 2 = CALIFORNIA MARIOUT 3 = CONQUEST 4 = DICKSON
 No. of days Later than } 5 = PIROLINE 6 = PRIMUS 7 = UNITAN 8 = B1202

3. PLANT HEIGHT (From soil level to top of head):

1 = SEMIDWARF 2 = SHORT (California Mariout) 3 = MEDIUM TALL (Betzes) 4 = TALL (Conquest)

Cm. Shorter than } 1 = BETZES 2 = CALIFORNIA MARIOUT 3 = CONQUEST 4 = DICKSON
 Cm. Taller than } 5 = PIROLINE 6 = PRIMUS 7 = UNITAN 8 = B1202

4. STEM:

Éxertion (Flag to spike at maturity): 1 = 0 - 3 cm. 2 = 3 - 10 cm. Anthocyanin: 1 = ABSENT 2 = PRESENT
3 = 10 - 15 cm.

NO. OF NODES (Originating from node above ground)

Collar Shape: 1 = CLOSED 2 = V-SHAPED 3 = OPEN Shape of Neck: 1 = STRAIGHT 2 = SNAKY
4 = MODIFIED CLOSED OR OPEN 5 = SAUCER 3 = OTHER (Specify)

5. LEAF:

Basal leaf sheath (seedling): 1 = GLABROUS 2 = PUBESCENT Position of flag leaf (at boot stage): 1 = DROOPING
2 = UPRIGHT

Waxiness: 1 = ABSENT (Glossy) 2 = SLIGHTLY WAXY MM. WIDTH (First leaf below flag leaf)
3 = WAXY

CM. LENGTH (First leaf below flag leaf) Anthocyanin in leaf sheath: 1 = ABSENT 2 = PRESENT

6. HEAD:

Type: 1 = TWO-ROWED 2 = SIX-ROWED Density: 1 = LAX 2 = ERECT (Not dense)
3 = ERECT (Dense) 4 = MID-DENSE

Shape: 1 = TAPERING 2 = STRAP 3 = CLAVATE Waxiness: 1 = ABSENT (Glossy) 2 = SLIGHTLY WAXY
4 = OTHER (Specify) PARALLEL 3 = WAXY

Lateral Kernels Overlap: 1 = NONE 2 = AT TIP Rachis (Hair on edge): 1 = LACKING 2 = FEW 3 = COVERED
3 = 1/4 - 1/2 OF HEAD

7. GLUME:

Length: 1 = 1/3 OF LEMMA 2 = 1/2 OF LEMMA Hairs: 1 = NONE 2 = SHORT 3 = LONG
3 = MORE THAN 1/2 OF LEMMA

Hair covering: 1 = NONE 2 = RESTRICTED TO MIDDLE 3 = CONFINED TO BAND 4 = COMPLETELY COVERED

Awns: 1 = LESS THAN EQUAL TO LENGTH OF GLUMES 2 = EQUAL TO LENGTH OF GLUMES
3 = MORE THAN EQUAL TO LENGTH OF GLUMES

Awn Surface: 1 = SMOOTH 2 = SEMISMOOTH 3 = ROUGH

9700062

8. LEMMA:

- ☐ 5 Awn: 1 = AWNLESS 2 = AWNLETS ON CENTRAL ROWS AWNLESS ON LATERAL ROWS
3 = SHORT ON CENTRAL ROWS AWNLETS ON LATERAL ROWS 4 = SHORT (less than equal to length of spike)
5 = LONG (longer than spike) 6 = HOODED
- ☐ 3 Awn Surface: 1 = AWNLESS 2 = SMOOTH 3 = SEMISMOOTH 4 = ROUGH
- ☐ 2 Teeth: 1 = ABSENT 2 = FEW 3 = NUMEROUS ☐ 1 Hair: 1 = ABSENT 2 = PRESENT
- ☐ 1 Shape of base: 1 = DEPRESSION 2 = SLIGHT CREASE ☐ 2 Rachilla Hairs: 1 = SHORT 2 = LONG
3 = TRANSVERSE CREASE

9. STIGMA:

- ☐ 2 Hairs: 1 = FEW 2 = MANY

10. SEED:

- ☐ 2 Type: 1 = NAKED 2 = COVERED ☐ Hairs on Ventral Furrow: 1 = ABSENT 2 = PRESENT
- ☐ 3 Length: 1 = SHORT (8.0 mm.) 2 = SHORT TO MIDLONG (7.5 - 9.0 mm.) 3 = MIDLONG (8.5 - 9.5 mm.)
4 = MIDLONG TO LONG (9.0 - 10.5 mm.) 5 = LONG (10.0 mm.)
- ☐ 2 Wrinkling of hull: 1 = NAKED 2 = SLIGHTLY WRINKLED 3 = SEMIWRINKLED 4 = WRINKLED
- ☐ 1 Aleurone Color: 1 = COLORLESS (White or Yellow) 2 = BLUE
- ☐ 0 ☐ 0 PERCENT ABORTIVE ☐ 4 ☐ 6 GMS. PER 1000 SEEDS

11. DISEASE: (0 = Not Tested, 1 = Susceptible, 2 = Resistant) MOD. SUSC., 3=MOD. RES., 4=RESISTANT

- ☐ 0 SEPTORIA ☐ 4 NET BLOTCH ☐ 0 SPOT BLOTCH ☐ 0 POWDERY MILDEW
- ☐ 0 LOOSE SMUT ☐ 0 BACTERIAL BLIGHT ☐ 0 COVERED SMUT ☐ 0 FALSE LOOSE SMUT
- ☐ 0 STEM RUST ☐ 0 LEAF RUST ☐ 0 SCAB ☐ 3 SCALD
- ☐ 0 AY ☐ 0 BSMV ☐ 0 BYDV ☐ - OTHER (Specify)

12. INSECT: (0 = Not tested, 1 = Susceptible, 2 = Resistant)

- ☐ 0 GREEN BUG ☐ 0 ENGLISH GRAIN APHID ☐ 0 CHINCH BUG ☐ 0 ARMYWORM
- ☐ 0 GRASS HOPPERS ☐ 0 CEREAL LEAF BEETLE ☐ 0 OTHER (Specify)
- HESSIAN FLY RACES } ☐ 0 GP ☐ 0 A ☐ 0 B ☐ 0 C
☐ 0 D ☐ 0 E ☐ 0 F ☐ 0 G

13. CHEMICAL (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

- ☐ DDT ☐ OTHER (Specify)

14. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED:

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Plant tillering	B1202	Seed size	B1202
Leaf size	B1201	Coleoptile elongation	B1202
Leaf color	B1202	Seedling pigmentation	B1202
Leaf carriage	B1202		

REFERENCES: The following publications may be used as a reference aid for the standardization of character descriptions and terms used in this form:

- Wiebe, G. A., and D. A. Reid, 1961, Classification of Barley Varieties Grown in the United States and Canada in 1958, Technical Bulletin No. 1224, U.S. Dept. of Agriculture.
- Reid, D. A., and G. A. Wiebe, 1968, Barley: Origin, Botany, Culture, Winter Hardiness, Genetics, Utilization, Pests, Agriculture Handbook No. 338, U.S. Dept. of Agriculture. pp. 61 - 84.
- Malting Barley Improvement Association, Milwaukee, Wisconsin, 1971, Barley Variety Dictionary.

COLOR: Nickerson's or any recognized color fan may be used to determine color of the described variety.

FORM LPGS-470-5 (8-80) (REVERSE)

EXHIBIT D**BOTANICAL DESCRIPTION OF MERIT**

Merit is a two-rowed, mid-season spring barley bred and developed by Busch Agricultural Resources, Incorporated, Ft. Collins, Colorado. It has excellent malting quality.

Juvenile growth habit is erect. Plant color at boot is green with an upright flag leaf. Head shape is parallel and mid-dense in density with a nodding head type. Neck is straight with a saucer collar. First rachis segment is long and narrow. Base of the first segment is a margin flange with hairs on the margin. Rachis shape is plain with shoulder hairs and long hairs covering the edge. Glume length is one half the length of the kernel and glume hair is long and confined to a band. The glume awns are rough and equal to the length of the glume. Lemma awns are rough, longer than the spike and persistent. Lemma teeth are few. Lemma hair is absent and the base is a depression. Lateral floret formation is divergent with rounded lemma tips. Seed is covered, mid-long to long, finely wrinkled with wax present and the aleurone is colorless. Palea tips are crossed. Rachilla length is one-fourth the length of the kernel with long sparse hair all over. Ventral crease is open and lacks crease hairs.

Merit is an intermountain two-rowed variety well adapted to Montana, Idaho and Wyoming.

Merit
Anheuser-Busch Approved Variety
Agronomic Summary

Line or Variety	Yield (% B1202)							(21)	(21)	(24)	(13)	(6)	(5)
	(11) Pre-95	(3) 95	(3) 96	(5) 97	(3) 98	(3) 99	(28) Avg	Ht CM	Ldg 1-9	Mat 1-9	Test Wt.	Scald	Net Blotch
Merit	107	114	100	114	107	115	109	88	2.1	4.9	51.2	11.9	1.2
B1202	100 (115) *	100 (122)	100 (108)	100 (117)	100 (100)	100 (101)	100 (112)	88	2.1	4.0	50.6	13.7	6.2
Harrington	101	97	90	101	100	87	98	89	2.6	3.9	52.6	14.2	3.5

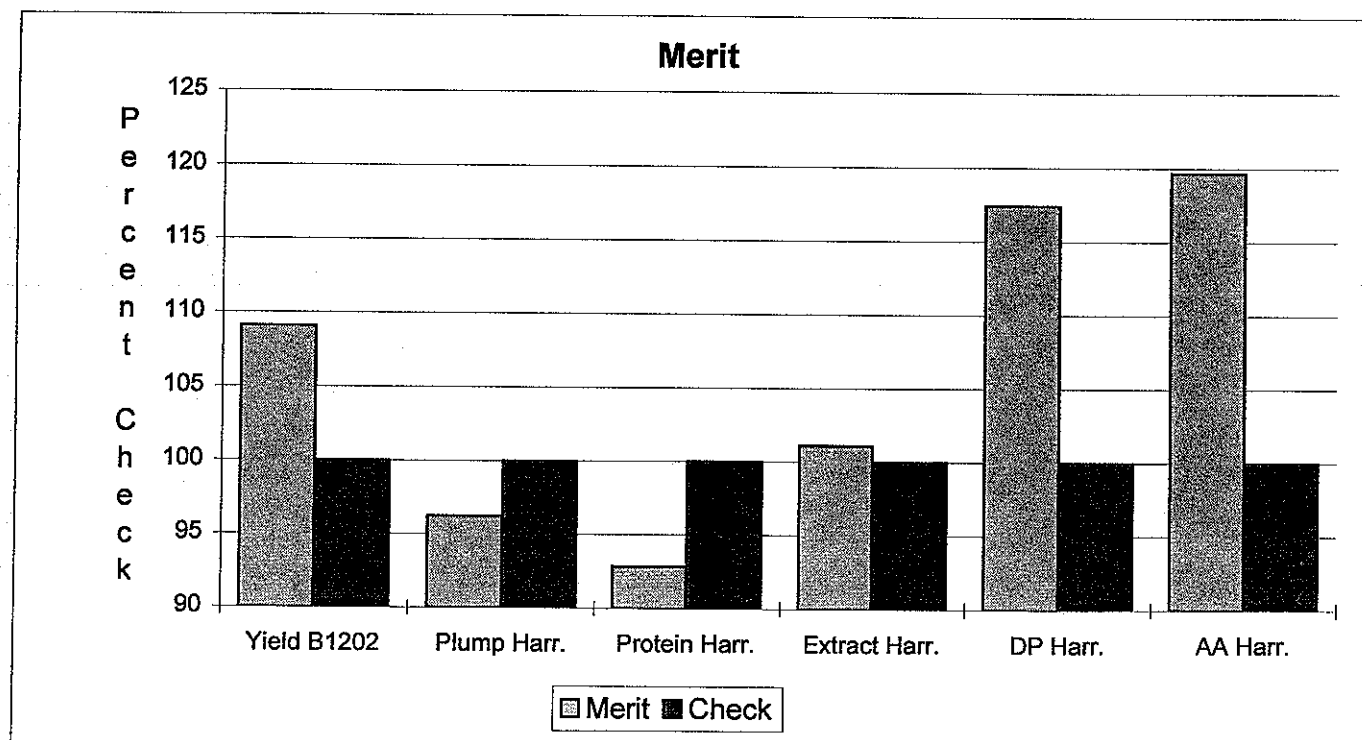
1991-99 Data, () = Station Years

* Bushel / Acre

Quality Summary

Line or Variety	Extract							Wort				
	(19) % Plump	(23) Malt Protein	(16) F. Grind	(23) C. Grind	(16) F-C Diff	(16) Wort Visc	(23) S/T	(23) Sol Protein	(23) DP	(23) AA	(4) Color	(20) Turb
Merit	83.5	10.3	81.1	80.2	1.03	1.45	51.8	5.3	146	86.8	1.85	7
Harrington	86.8	11.1	80.6	79.3	1.50	1.47	49.2	5.4	124	72.5	1.70	7

1991-98 Data, () = Station Years



Agronomic and quality abbreviation defined.

Yield = The yield as a percent of B1202

Ht CM = The height of the plant in centimeters

Ldg 1-9 = The percent of lodging, 1= 0%- 10% and 9= 90% - 100% lodging

Mat = Is a rating of maturity, 1= very early and 9 = very late

Test Wt. = Test Weight which measures bushel weight

Scald = The percent of the plant infected with scald.

Net Blotch = the percent of the plant infected with net blotch

% Plump = The percent of plump kernels

Malt Protein = The protein measurement of the malt

F. Grind = The measurement of extract from barley ground to a fine particle size.

C. Grind = The measurement of extract from barley ground to a course particle size.

F-C Diff = The difference between fine and the course grind.

Wort Visc. = The viscosity of the wort.

S/T = The soluble protein divided by the total protein.

Sol Protein = Soluble protein.

DP = Diastatic Power (enzyme measurement).

AA = Alpha Amylase (enzyme measurement).

Color = Measures clarity

Turb = Turbidity or folowability.

U.S. DEPARTMENT OF AGRICULTURE
 AGRICULTURAL MARKETING SERVICE
 SCIENCE AND TECHNOLOGY DIVISION - PLANT VARIETY PROTECTION OFFICE

EXHIBIT E
STATEMENT OF THE BASIS OF OWNERSHIP

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S) BUSCH AGRICULTURAL RESOURCES, INC.	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER 2B91-4947	3. VARIETY NAME MERIT
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country) 3515 EAST COUNTY ROAD 52 FT. COLLINS, CO 80524 USA	5. TELEPHONE (include area code) (970) 221-5622	6. FAX (include area code) (970) 482-5965
	7. PVPO NUMBER 9700062	
8. Does the applicant own all rights to the variety? Mark an "X" in appropriate block. If no, please explain. <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		
9. Is the applicant (individual or company) a U.S. national or U.S. based company? If no, give name of country <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		
10. Is the applicant the original breeder? If no, please answer the following: a. If original rights to variety were owned by individual(s): Is (are) the original breeder(s) a U.S. national(s)? If no, give name of country <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO b. If original rights to variety were owned by a company: Is the original breeder(s) U.S. based company? If no, give name of country <input type="checkbox"/> YES <input type="checkbox"/> NO		
11. Additional explanation on ownership (If needed, use reverse for extra space):		

PLEASE NOTE:

Plant variety protection can be afforded only to owners (not licensees) who meet one of the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.
2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.
3. If the applicant is an owner who is not the original breeder, both the original breeder and the applicant must meet one of the above criteria.

The original breeder may be the individual or company who directed final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definition.

Public reporting burden for this collection of information is estimated to average 10 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Agriculture, Clearance Officer, OIRM, AG Box 7630, Jamie L. Whitten Building, Washington, D.C. 20250. When replying, refer to OMB No. 0581-0055 and form number in your letter.

Under the PRA of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

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To file a complaint, write the Secretary of Agriculture, U.S. Department of Agriculture, Washington, D.C. 20250, or call (202) 720-7327 (voice) or (202) 720-1127 (TDD). USDA is an equal employment opportunity employer.

EXHIBIT E.**STATEMENT OF THE BASIS OF APPLICANT'S OWNERSHIP**

Busch Agricultural Resources, Incorporated is applicant for protection in this case being:

- a.) The incorporated business registered in Delaware for and within regular employees have bred 2B91-4947.
- b.) The proprietary owner and intending commercial seller of 2B91-4947.